In choosing Mercury MG 50000, the Librarian of Congress has identified the significant and essential role technology has played in the history of recorded sound.

Mercury’s technology in recording MG 50000—Kubelik conducting “Pictures at an Exhibition”—combined two key elements: first, the employment of a single microphone which transformed the music in Chicago’s Symphony Hall into electrical signals for preservation on magnetic tape. The second was a specially designed disc cutting system that inscribed the magnetically-preserved signals into a physical groove on a 12-inch vinyl long-playing record.

None of these tools was new—the microphone, a Telefunken U-47, was made in Germany and was based on a condenser element dating to the late 1920s. Mercury’s tape machine was the direct descendent of technology that was first used extensively by the German Radio during War II. The LP record itself was first commercialized, unsuccessfully, by the American Victor company in the early 1930s.

The key factor behind Mercury’s accomplishment honored by the Librarian was the Telefunken U-47, whose sensitivity and frequency range made it an ideal choice for the Mercury recording team. Once again, this was not a “new” technique—using a single microphone had already been common practice in live symphonic radio broadcasts in the US and in Europe. What’s new was Mercury’s dedication to making LP records that were more nearly faithful to the sound in the recording hall, thanks to the careful placement of the single U-47 in Chicago’s Orchestra Hall. From Mercury’s innovations in making records came an LP that possessed more dynamic range, and more brilliant, detailed sound, than LPs made by America’s big commercial companies. Moreover, the shape and loudness of the sound of the Chicago Symphony on MG 50000 was
conjured by the baton of conductor Rafael Kubelik, not by the knob twisting by a Mercury engineer.

This “no compromise” style of orchestral recording reached listeners just as the LP was expanding the market for recorded classical music far beyond collectors of expensive 78 rpm classical shellac discs. Practically by itself, MG 50000 created the market for High Fidelity in the home—in 1952, it was one of America’s best-selling LPs. Quickly known in record shops and equipment dealers as the ideal Hi-Fi “demonstration record,” it joined classic performances by Toscanini and the NBC Symphony at the top of the LP charts. The technique it pioneered, dubbed “Living Presence” thanks to a review in the “New York Times,” was soon imitated by other companies, but remains today a path-breaking innovation in recorded sound.

Michael Gray was educated at the University of North Carolina, graduated in 1968, and received his Master of Science in 1972. From 1972 to 1976, he served on the staff of the Library of Congress. From 1976 to 2010, he held senior supervisory positions in the Music, Sound and Book libraries at the Voice of America in Washington, DC. His books include “Beecham,” a Centenary discography, Bibliographies of Classical discography, published 1977 and 1989; and discographies of the conductor Artur Rodzinski, the Hollywood String Quartet, pianist Solomon, and others.

*The opinions expressed in this essay are those of the author and may not reflect those of the Library of Congress.